WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
MONTANA & NORTHERN WYOMING

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE,
and
MONTANA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with the Bureau of Reclamation, U.S. Forest Service, U.S. Geological Survey, National Park Service, State Engineers of Montana and Wyoming and other Federal, State, and private organizations.

AS OF
MAY 1, 1962

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Cooperative Snow Survey and Water Supply Forecast Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Fortunately, most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from fore-knowledge of the runoff.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, about 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

By relating snow survey measurements taken over a period of years to spring-summer runoff during the same period, relationships have been developed which make it possible to forecast seasonal runoff several months in advance of occurrence. In order to make a forecast, once a forecast relationship has been developed, the maximum snow water content at previously selected key snow courses is usually entered in the forecast relationship. More accurate forecasts are often obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast relationships.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions.

PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS	ISSUED	LOCATION	COOPERATING WITH
RIVER BASINS			
COLORADO AND STATE OF UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER AND OTHER AGENCIES
COLUMBIA	MONTHLY (JAN.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
UPPER MISSOURI AND STATE OF MONTANA	MONTHLY (FEB.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
WEST-WIDE	OCT. 1, APR. 1, MAY 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN.15 - APR.1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. AGR. EXP. STATION COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (FEB.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	ORE. AGR. EXP. STATION OREGON STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

Copies of these various reports may be secured from:

Head, Water Supply Forecasting Section
Soil Conservation Service
P.O. Box 4170, Portland 8, Oregon

PUBLISHED BY OTHER AGENCIES

REPORTS	ISSUED	AGENCY
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	COMPTROLLER, WATER RIGHTS BR., DEPT. OF LANDS AND FORESTS, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, SACRAMENTO, CALIF.

FEDERAL-STATE-PRIVATE COOPERATIVE

SNOW SURVEYS AND WATER SUPPLY FORECASTS

for

MONTANA AND NORTHERN WYOMING
(Upper Missouri and Upper Columbia River Basins)

Report Prepared
By

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Acting Snow Survey Supervisor

Soil Conservation Service
Snow Survey Section
Box 855, Bozeman, Montana

Issued By

H. D. Hurd
State Conservationist
Soil Conservation Service
Bozeman, Montana

R. E. Huffman
Director
Montana Agricultural
Experiment Station
Bozeman, Montana

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MONTANA
WATER SUPPLY OUTLOOK
as of
May 1, 1962

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* * * * * * * * * * * * * * * * * * * * * * *
*                                           *
* The water supply outlook is good for the  *
* early summer months with possibility of   *
* only a fair to poor supply during the     *
* later part of the summer.                 *
*                                           *
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Snow surveys made near the first of May indicate a decrease in the amount of water stored in the mountain snowpack during the past month.

All watersheds in the state have a below average May 1 snowpack.

West of the Continental Divide, streamflow during the May through September period is forecast to be near average to 10 percent below average. East of the Divide, streamflow is expected to be about 15 percent below average in the Jefferson, Marias and Sun River drainages. Near average streamflow is expected in the Madison drainage, while the Gallatin and headwaters area of the Yellowstone are forecast at 10 to 15 percent above average.

Storage in irrigation reservoirs is generally near average with the exception of those in the Milk River and Musselshell River drainages.

Mountain soils are generally saturated while valley soils are becoming dry.

UPPER MISSOURI RIVER BASIN
SNOW SURVEY COURSES
IN
MONTANA & NORTHERN WYOMING
LEGEND
TOWNS AND CITIES
13D4 SNOW SURVEY COURSE
9G1 IDAHO NUMBERS
STREAM GAGING STATIONS
BOUNDARIES OF WATERSHEDS
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE
BOZEMAN MONTANA
SCALE IN MILES
50 25 0 50 100
KOOTENAI
FLATHEAD
ST. MARY
MILK
MARIAS
TETON
SUN
CLARK FORK
BLACKFOOT
BITTERROOT
HOLE
JEFFERSON
BEAVERHEAD
RUBY
MADISON
GALLATIN
I
II
III
IV
V
VI
VII
VIII
IX
LIBBY
HERON
KALISPELL
COLUMBIA FALLS
POLSON
THOMPSON FALLS
PLAINS
ST REGIS
MISSOULA
HAMILTON
SHELBY
CHOTEAU
AUGUSTA
GREAT FALLS
OVANDO
HELENA
ANACONDA
BUTTE
DILLON
BOZEMAN
WILSALL
LIVING
CORWIN SPRINGS
IDAHO

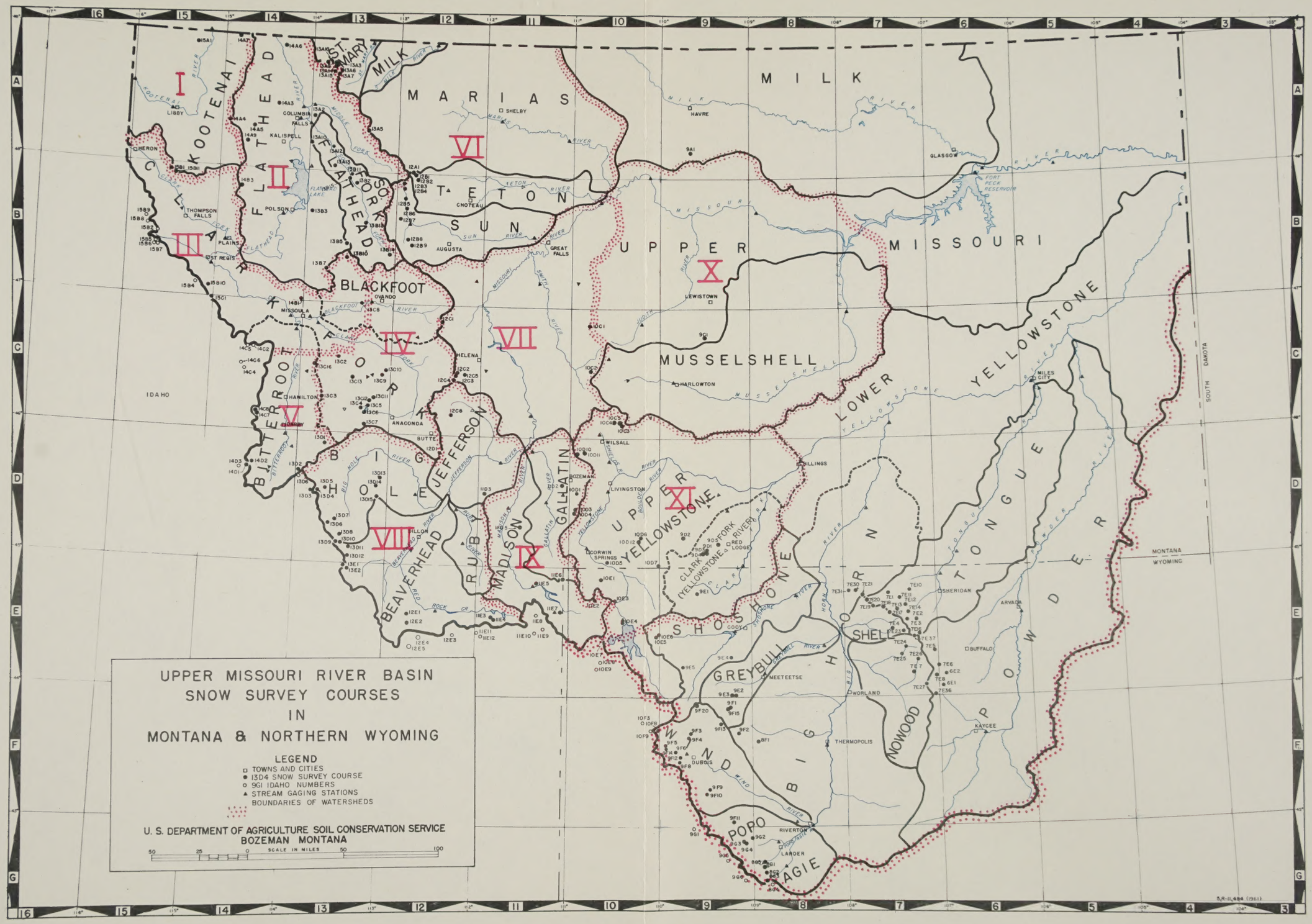
MILK
HAVRE
GLASGOW
FORT PECK RESERVOIR
MISSOURI
LEWISTOWN
USSELSHELL
HARLOWTON
LOWER YELLOWSTONE
MILES CITY
SOUTH DAKOTA
BILLINGS
RED LODGE
CLARK FORK (YELLOWSTONE)
MONTANA
WYOMING
SHERIDAN
ARVADA
BUFFALO
GREYBULL
MEETEETSE
WORLAND
THERMOPOLIS
KAYCEE
DUBOIS
RIVERTON
LANDER
POPO AGIE
BIG HORN
NOWOOD
TONGUE
POWDER
5,R-11,484 (1961)

SOIL MOISTURE
as of
May 1, 1962

Drainage Basin and Station	Station No.	Elev.	Soil Profile in Inches Depth	Soil Profile in Inches Cap.	Date	Soil Moisture Content in Inches About 5/1/62 1962	1961	1960	Avg.
GALLATIN									
College Site	11D2M	4856	54	14.5	4/27	11.9	11.3	13.1	11.8
MADISON									
Red Bluff	11D4M	4900	40	4.7	4/28	2.0	2.4	-	-
SHIELDS									
Battle Ridge	10D11M	6020	48	15.4	4/29	14.6	14.4	-	-
Shields River	10C4M	5850	48	20.8	4/29	21.1	16.4	-	-
FLATHEAD									
Desert Mountain	13A2M	5600	54	8.4	4/27	8.9	8.2	8.8	8.2
Marias Pass	13A5M	5250	54	6.5	4/25	6.1	6.0	5.9	6.0
Spotted Bear R.S.	13B15M	3700	28	6.2	4/30	6.0	6.2	6.0	6.1
Trout Lake	13A12M	3600	54	12.7	4/30	12.6	12.5	12.4	12.5

SOIL MOISTURE
as of
October 1, 1961

						1961	1960	1959	Avg.
GALLATIN									
College Site	11D2M	4856	54	14.5	9/29	9.1	5.8	8.6	5.8
MADISON									
Red Bluff	11D4M	4900	40	4.7	9/22	3.2	-	-	-
SHIELDS									
Battle Ridge	10D11M	6020	48	15.4	9/30	9.3	10.6	-	-
Shields River	10C4M	5850	48	20.8	9/30	8.7	11.5	-	-
FLATHEAD									
Desert Mountain	13A2M	5600	54	8.4	10/5	4.9	4.5	7.2	5.8
Marias Pass	13A5M	5250	54	6.5	9/26	3.6	2.8	4.9	3.8
Spotted Bear R.S.	13B15M	3700	28	6.2	10/5	4.4	0.9	5.2	3.1
Trout Lake	13A12M	3600	54	12.7	10/5	7.8	6.9	9.8	7.7


UPPER MISSOURI RIVER BASIN
SNOW SURVEY COURSES
IN
MONTANA & NORTHERN WYOMING
LEGEND
TOWNS AND CITIES
13D4 SNOW SURVEY COURSE
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U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE
BOZEMAN MONTANA
SCALE IN MILES
KOOTENAI
FLATHEAD
ST. MARY
MILK
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BLACKFOOT
CLARK FORK
BITTERROOT
BIG HOLE
JEFFERSON
BEAVERHEAD
RUBY
MADISON
GALLATIN
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MUSSELSHELL
LOWER YELLOWSTONE
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TONGUE
BIG HORN
POWDER
SHOSHONE
GREYBULL
SHELL
NOWOOD
WIND
BIG
POPO AGIE
I
II
III
IV
V
VI
VII
VIII
IX
X
XI
IDAHO
SOUTH DAKOTA
MONTANA
WYOMING
LIBBY
HERON
THOMPSON FALLS
PLAINS
ST REGIS
KALISPELL
COLUMBIA FALLS
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MADISON									
Red Bluff	11D4M	4900	40	4.7	4/28	2.0	2.4	-	-
SHIELDS									
Battle Ridge	10D11M	6020	48	15.4	4/29	14.6	14.4	-	-
Shields River	10C4M	5850	48	20.8	4/29	21.1	16.4	-	-
FLATHEAD									
Desert Mountain	13A2M	5600	54	8.4	4/27	8.9	8.2	8.8	8.2
Marias Pass	13A5M	5250	54	6.5	4/25	6.1	6.0	5.9	6.0
Spotted Bear R.S.	13B15M	3700	28	6.2	4/30	6.0	6.2	6.0	6.1
Trout Lake	13A12M	3600	54	12.7	4/30	12.6	12.5	12.4	12.5

SOIL MOISTURE
as of
October 1, 1961

						1961	1960	1959	Avg.
GALLATIN									
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MADISON									
Red Bluff	11D4M	4900	40	4.7	9/22	3.2	-	-	-
SHIELDS									
Battle Ridge	10D11M	6020	48	15.4	9/30	9.3	10.6	-	-
Shields River	10C4M	5850	48	20.8	9/30	8.7	11.5	-	-
FLATHEAD									
Desert Mountain	13A2M	5600	54	8.4	10/5	4.9	4.5	7.2	5.8
Marias Pass	13A5M	5250	54	6.5	9/26	3.6	2.8	4.9	3.8
Spotted Bear R.S.	13B15M	3700	28	6.2	10/5	4.4	0.9	5.2	3.1
Trout Lake	13A12M	3600	54	12.7	10/5	7.8	6.9	9.8	7.7

INDEX TO MONTANA & NORTHERN WYOMING SNOW COURSES

COLUMBIA RIVER BASIN

Drainage Basin & Course Name	Number	Elev.	Location Sec. Lat.	Twp.	Range Long.	Record Began	Measuring Dates	Meas. By
KOOTENAI RIVER								
Baree Creek	15B11	5500	6	25N	30W	1937	4,5,5½	2
Brush Creek	14A4	5000	13	30N	26W	1937	3,4,5	1
Red Mountain	15A1	6000	4	36N	29W	1937	3,4,5,5½	1
Weasel Divide	14A7	5450	8	37N	24W	1937	3,4,5,5½	1
FLATHEAD RIVER								
Basin Creek	13B14A	5000	11	19N	12W	1951	2,3,4,5	1
Bassoo Peak	14B3	5150	11	24N	25W	1960	3,4,5	1,5
Big Creek	13B3	6750	7	22N	18W	1941	3,4,5, 6	1,5
Desert Mountain	13A2M	5600	24	31N	19W	1937	1,2,3,4,5	1,2
Griffin Creek Divide	14A9	5150	11	28N	25W	1960	3,4,5	1,5
Hell Roaring Divide	14A3	5770	35	32N	22W	1942	3,4,5	1
Holbrook	13B13A	4530	18	21N	13W	1951	2,3,4,5	1
Kishenehn	14A6	3886	14	37N	22W	1954	3,4	6
Logan Creek	14A5	4300	34	30N	24W	1937	3,4,5	1
Marias Pass	13A5M	5250	34	30N	14W	1934	1,2,3,4,5	3
Mineral Creek	13A16	4000	29	35N	17W	1939	3,4	6
North Fork Jocko	13B7	6330	3	17N	17W	1941	3,4,5, 6	1,5
Quintonkon	13A13	3800	11	26N	17W	1951	4	1,2
Spotted Bear Mt.	13B2	7000	23	25N	15W	1948	1,2,3,4,5	1,2
Strawberry Lake	13A10	6500	11	28N	19W	1948	3,4,5	2
Trinkus Lake	13B1	6500	9	25N	17W	1948	3,4,5	2
Trout Lake	13A12M	3600	21	28N	17W	1948	1,2,3,4,5	1,2
Twin Creeks	13B11	3580	14	26N	16W	1951	3,4,5	1,2
Upper Holland Lake	13B5	7000	28	20N	16W	1948	3,4,5	2
CLARK FORK RIVER								
Black Pine	13C13	7100	23	8N	15W	1959	3,4	1
Coyote Hill	13B10	4200	12	18N	16W	1947	1,2,3,4,5	1,2
El Dorado Mine	13C9	7800	23	8N	12W	1949	3,4	1
Fred Burr Pass	13C11	8000	12	6N	13W	1957	3,4	1
Freezeout Pass	15B10	6800	21	15N	27W	1937	4,5	1,2
Gold Creek Lake	13C10	7200	14	8N	12W	1949	3,4	1
Hoodoo Creek	15C1	6200	9	14N	27W	1937	4,5	1,2
Intergaard	13C4	6450	6	5N	13W	1936	2,3,4	4
Lubrecht Forest #6	13C8	4040	11	13N	14W	1951	1,2,3,4,5	8
Red Lion	13C12	7000	27	6N	13W	1958	3,4	1
Skalkaho Summit	13C3	7259	30	6N	17W	1937	3,4	1
Slide Rock Mt.	13C2	7100	35	10N	16W	1937	3,4	1
Southern Cross	13C5	6500	8	5N	13W	1936	2,3,4	4
Storm Lake	13C7	7780	19	4N	13W	1939	1,2,3,4,5	1
Stuart Mill	13C6	6500	19	5N	13W	1936	2,3,4	4
I.V. Mountain	14B1	6800	33	15N	19W	1956	1,2,3,4,5	1
BITTERROOT RIVER								
Ambrose	13C16	6475	28	9N	18W	1960	3,4,5	1
East Fork R.S.	13D1	5400	16	2N	17W	1937	3,4	1
Gibbons Pass	13D2	7100	4	2S	19W	1934	1,2,3,4,5	1,3
Lolo Pass	14C5	5230	11	10N	24W	1937	3,4,5	1,2
Lost Horse	14C7	5940	5	4N	23W	1960	3,4,5	1
Nez Perce Camp	14D2	5580	19	1S	23W	1937	3,4,5	1
Nez Perce Pass	14D1	6575	25	1S	24W	1937	3,4,5	1
Twin Lakes	14C8	6510	32	5N	23W	1960	3,4,5	1

SASKATCHEWAN RIVER BASIN

Drainage Basin & Course Name	Number	Elev.	Location Sec. Lat.	Twp.	Range Long.	Record Began	Measuring Dates	Meas. By
ST. MARY								
Iceberg Lake #3	13A3	5600	34	36N	16W	1922	5	3,9
Josephine Lower #9	13A14	4900	10	35N	16W	1955	5	3,9
Mount Allen #7	13A7	5700	22	35N	16W	1922	5	3,9
Piegan Pass #6	13A6	5500	15	35N	16W	1922	5	3,9
Ptarmigan #8	13A8	5800	32	36N	16W	1937	5	3,9

MISSOURI RIVER BASIN

Drainage Basin & Course Name	Number	Elev.	Location Sec. Lat.	Twp.	Range Long.	Record Began	Measuring Dates	Meas. By
BEAVERHEAD RIVER								
Bloody Dick	13D10	7600	12	8S	16W	1948	3,4	1
Gold Stone	13D9	8100	11	8S	16W	1948	3,4	1
Lakeview Canyon	11E4	6930	26	14S	2W	1948	3,4,5	10
Lakeview Ridge	11E3	7400	27	14S	2W	1948	3,4,5	10
Lemhi Pass	13E1	7480	9	10S	15W	1948	3,4	1
Limekiln	12E2	6950	5	15S	9W	1948	3,4	1
Selway Junction	13D11	6800	27	8S	15W	1948	3,4	1
Terrell Creek	13D12	6650	14	9S	15W	1948	3,4	1
Trail Creek	13E2	7090	15	10S	15W	1948	3,4	1
White Pine Ridge	12E1	8850	18	14S	9W	1948	3,4	1
BIG HOLE RIVER								
Anderson Meadow	13D14	7000	18	3S	12W	1948	3,4	1
Below Big Hole Pass	13D4	6900	24	3S	18W	1948	3,4	1
Big Hole Pass	13D3	7240	28	3S	18W	1948	3,4	1
East Boundary	13D5	6700	22	3S	17W	1948	3,4	1
Elk Horn Springs	13D15	8450	15	4S	12W	1935	3,4,5	3
Jahnke Creek	13D8	7340	25	7S	16W	1948	3,4	1
Miner Forks	13D6	7300	24	6S	17W	1948	3,4	1
Miner Lake	13D7	6720	10	6S	16W	1945	3,4	1
Wise River	13D13	6300	15	2S	12W	1948	3,4	1
JEFFERSON RIVER								
Picnic Grounds	12D6	6500	10	5N	6W	1941	2,3,4	4
Pipestone Pass	12D1	7200	10	1N	7W	1938	1,2,3,4,5	1
MADISON RIVER								
Hebgen Dam	11E5	6550	22	11S	3E	1934	1,2,3,4,5	3
Jack Creek	11D5	7600	13	6S	1E	1961	3,4	1
Norris Basin	10E2	7500	44°44'		110°42'	1936	1,2,3,4,5	6
North Meadow	11D3	7500	23	3S	3W	1961	3,4	1
West Yellowstone	11E7	6700	34	13S	5W	1934	1,2,3,4,5	3
GALLATIN RIVER								
Devil's Slide	10D4	8100	14	5S	6E	1935	2,3,4,5	1
Hood Meadow	10D3	6600	22	4S	6E	1935	2,3,4,5	1
New World	10D1	6700	24	3S	6E	1939	2,3,4	1
Twenty-One Mile	11E6	7150	1	11S	5E	1934	1,2,3,4,5	3
MISSOURI RIVER MAIN STEM								
Chessman Reservoir	12C5	6200	2	8N	5W	1936	1,2,3,4,5	3
Crystal Lake	9C1	6100	19	12N	18E	1941	3,4	1
Grasshopper	10C2	7000	19	9N	8E	1938	3,4	1
Kings Hill	10C1	7950	35	13N	7E	1934	3,4,5	3
Rocky Boy	9A1	5200	15	28N	16E	1941	3,4	7
Stemple Pass	12C1	6900	16	13N	7W	1934	3,4,5	3
Ten Mile Creek L.	12C2	6250	13	8N	6W	1935	1,2,3,4,5	3
Ten Mile Creek M.	13C3	6800	13	8N	6W	1934	1,2,3,4,5	3
Ten Mile Creek, U.	12C4	8000	19	8N	5W	1935	1,2,3,4,5	3
SUN-TETON-MARIAS RIVERS								
Benchmark	12B8	5500	9	20N	10W	1948	3,4	1
Cabin Creek	12B6	5400	33	23N	10W	1949	3,4	1
Five-Bull	12B9	5600	36	20N	10W	1948	3,4	1
Freight Creek	12A1	6000	13	26N	10W	1948	3,4	1
Gates Park	12B5	5300	31	24N	10W	1949	3,4	1
Goat Mountain	12B7	7000	20	22N	10W	1934	3,4	1
Waldron Creek	12B2	5600	16	25N	9W	1948	3,4	1
West Fork	12B1	6000	6	25N	9W	1948	3,4	1
Wrong Creek	12B4	5700	32	25N	10W	1949	3,4	1
Wrong Ridge	12B3	6800	17	25N	10W	1949	3,4	1
MILK RIVER (Canada)								
Cress Day	10AA2	3450	49°-19'		110°-14'-15"	1953	4	9
Cypress Park	9AA1	4000	49°-39'		109°-31'-00"	1953	4	9
Elkwater	10AA1	4100	49°-40'		110°-15'-16"	1953	4	9
Val Marie	7AA1	2700	40°-19'		107°-43'-44"	1953	4	9
UPPER YELLOWSTONE RIVER								
Bald Ridge	10C5	7500	11	4N	10E	1961	3,4,5	1
Camp Senia	9D1	7890	2	8S	18E	1937	3,4,5	1
Canyon	10E3	7750	44°-44'		110°-30'	1938	1,2,3,4,5	6
Cooke City	10D7	7400	25	9S	14E	1937	1,2,3,4,5	6
Crevice Mt.	10D5	8400	22	9S	9E	1935	3,4	2
Gertrude Lake	9D3	9250	10	8S	18E	1961	3,4,5	1
Grizzly Peak	9D5	8400	26	7S	19E	1961	3,4,5	1
Independence	10D6	8000	22	7S	12E	1940	3,4,5	1
Lake Camp	10E4	7850	44°-34'		110°-24'	1936	1,2,3,4,5	6
Lodgepole	9E1	8200	32	56N	106W	1940	2,3,4,5	1,2
Lupine	10E1	7300	44°-54'		110°-37'	1938	1,2,3,4,5	6
Monument Peak	10D12	9000	22	7S	12E	1961	3,4,5	1
Porcupine R.S.	10C3	6500	10	4N	10E	1938	3,4,5	1
Timberline Creek	9D4	8850	10	8S	18E	1961	3,4,5	1
Sacajawea	10D10	6550	36	2N	6E	1960	3,4,5	1
West Rosebud	9D2	7500	10	7S	16E	1960	1,2,3,4,5	4

MISSOURI RIVER BASIN (WYOMING) (Continued)

Drainage Basin & Course Name	Number	Elev.	Location Sec. Lat.	Twp.	Range Long.	Record Began	Measuring Dates	Meas. By
WIND RIVER								
Big Warm	9F12	8800	36	42N	109W	1955	2,3,4,5	1
Burroughs Creek	9F4	8800	15	43N	107W	1948	2,3,4,5	1
Dinwoodie	9F10	10000	9	38N	105W	1948	2,3,4,5	1,5
Dinwoodie Glaciers	9F17	10500	3	38N	106W	1959	2,3,4	1
Dry Creek	9F9	9500	34	4N	105W	1948	2,3,4,5	1,5
DuNoir	9F6	8750	27	42N	108W	1940	2,3,4,5	1
Geyser Creek	9F7	8500	12	41N	108W	1948	2,3,4,5	1
Little Warm	9F8	9500	24	41N	108W	1948	2,3,4,5	1
Sheridan R.S. #2	9F14	7500	3	42N	109W	1955	2,3,4,5	1
T-Cross Ranch	9F3	8000	1	43N	107W	1940	2,3,4,5	1
Togwotee Pass	10F9	9600	29	44N	110W	1936	2,3,4,5	11
POPO AGIE RIVER								
Blue Ridge	8G2	9500	23	31N	101W	1939	2,3,4,5	1
Bruce's Camp	8G5	6500	24	32N	101W	1955	2,3,4	1
Hobb's Park	9G3	10000	22	2S	3W	1948	2,3,4,5	1,5
Mosquito Park	9G4	9500	23	2S	3W	1940	2,3,4,5	1,5
Sawmill Glade	8G1	8500	3	31N	101W	1939	2,3,4,5	1
South Pass	8G3	9000	13	30N	101W	1939	2,3,4,5	1
St. Lawrence R.S.	9F11	9000	26	1N	4W	1940	2,3,4,5	1,5
Trout Creek	9G2	8400	5	2S	2W	1948	2,3,4,5	1,5
Twenty Lakes	9G7	10500	2	1S	5W	1959	2,3,4	1
BIG HORN RIVER								
Five-Springs Falls	7E31	7500	19	56N	92W	1956	2,3,4,5	1
Kirwin	9F19	11000	13	45N	104W	1960	2,3,4	1
Medicine Wheel	7E30	9000	24	56N	92W	1956	2,3,4,5	1
Owl Creek	8F1	8700	36	43N	101W	1948	2,3,4,5	1
Wood River #2	9F15	8000	28	46N	103W	1956	2,3,4,5	1
Timber Creek #2	9E3	8800	25	47N	103W	1955	2,3,4,5	1
Frontier Needle	9F20	10000	20	46N	106W	1961	2,3,4	1
SHOSHONE RIVER								
Carter Mt.	9E4	7800	15	50N	103W	1957	1,2,3,4	1
East Entrance	10E6	7000	17	52N	109W	1948	1,2,3,4,5	6
Ishawoa Cone	9E5	9200	12	49N	108W	1960	2,3,4	1
Sylvan Pass	10E5	7100	12	52N	110W	1936	1,2,3,4,5	6
Younts Peak	9F18	8500	28	46N	108W	1960	2,3,4	1
NOWOOD CREEK								
Cold Springs Camp	7E25	8700	1	50N	86W	1956	2,3,4,5	1
Medicine Lodge Lakes	7E24	9500	7	51N	87W	1956	2,3,4,5	1
Onion Gulch	7E27	8100	31	48N	85W	1956	2,3,4,5	1
Tensleep Lake	7E26	9075	33	50N	86W	1956	2,3,4,5	1
Tyrell R.S.	7E35	8300	30	49N	86W	1956	2,3,4,5	1
SHELL CREEK								
Bald Mountain	7E21	9600	33	56N	91W	1956	2,3,4,5	1
Granite Pass	7E17	8950	19	54N	88W	1956	2,3,4,5	1
Ranger Creek	7E4	8800	32	53N	88W	1935	2,3,4,5	1
Shell Creek	7E23	9600	12	52N	88W	1956	2,3,4,5	1
TONGUE RIVER								
Beaver Tongue Div.	7E20	9200	12	55N	91W	1956	2,3,4,5	1
Big Goose #2	7E32	7700	4	53N	86W	1955	2,3,4,5	1
Bone Springs Div.	7E18	9200	32	55N	89W	1956	2,3,4,5	1
Burgess R.S. #2	7E33	7900	36	56N	89W	1955	2,3,4,5	1
Dome Lake #2	7E34	8800	11	53N	87W	1950	2,3,4,5	1
Gloom Creek	7E14	9300	32	55N	87W	1956	2,3,4,5	1
Sibley Lake	7E11	8000	10	55N	88W	1956	2,3,4,5	1
Sucker Creek	7E12	9000	19	55N	87W	1956	2,3,4,5	1
Steamboat Point	7E10	7500	32	56N	87W	1956	2,3,4,5	1
Wood Rock G.S.	7E13	8500	3	54N	88W	1956	2,3,4,5	1
Geneva Pass	7E37	10600	30	52N	86W	1961	2,3,4,5	1
POWDER RIVER								
Bear Trap	7F1	8000	10	45N	85W	1960	2,3,4,5	1
Canyon Creek	7F2	7400	16	43N	86W	1960	2,3,4,5	1
Clouds Peak	7E36	10000	15	51N	85W	1960	2,3,4	1
Muddy Creek G.S.	6E2	7800	2	48N	84W	1956	2,3,4,5	1
Munkres Pass	7E8	9700	11	48N	85W	1950	2,3,4,5	1
Soldier Park	7E5	8700	36	51N	85W	1950	2,3,4,5	1
Sour Dough	7E6	8500	17	49N	84W	1936	2,3,4,5	1
Tensleep R.S.	7E7	8300	30	49N	86W	1956	2,3,4,5	1

a. Numerals 1,2,3,4 and 5 refer to January 1, February 1, March 1, April 1 and May 1.

b. Numerals refer to Agency that secures the snow survey as follows:

1. Soil Conservation Service
2. U. S. Forest Service
3. U. S. Geological Survey
4. Montana Power Company
5. U. S. Indian Service
6. National Park Service
7. Montana Experiment Station
8. Montana State Forestry School
9. Dominion Water & Power Bureau
10. U. S. Fish and Wildlife Service
11. U. S. Bureau of Reclamation

M - Soil Moisture
A - Aerial Marker

USDA SCS LINCOLN NEBR 1961

5,R-11,464 - (1961)

SOIL MOISTURE
as of
May 1, 1962

Drainage Basin and Station	Station No.	Elev.	Soil Profile in Inches Depth	Soil Profile in Inches Cap.	Date	Soil Moisture Content in Inches About 5/1/62 1962	1961	1960	Avg.
GALLATIN									
College Site	11D2M	4856	54	14.5	4/27	11.9	11.3	13.1	11.8
MADISON									
Red Bluff	11D4M	4900	40	4.7	4/28	2.0	2.4	-	-
SHIELDS									
Battle Ridge	10D11M	6020	48	15.4	4/29	14.6	14.4	-	-
Shields River	10C4M	5850	48	20.8	4/29	21.1	16.4	-	-
FLATHEAD									
Desert Mountain	13A2M	5600	54	8.4	4/27	8.9	8.2	8.8	8.2
Marias Pass	13A5M	5250	54	6.5	4/25	6.1	6.0	5.9	6.0
Spotted Bear R.S.	13B15M	3700	28	6.2	4/30	6.0	6.2	6.0	6.1
Trout Lake	13A12M	3600	54	12.7	4/30	12.6	12.5	12.4	12.5

SOIL MOISTURE
as of
October 1, 1961

						1961	1960	1959	Avg.
GALLATIN									
College Site	11D2M	4856	54	14.5	9/29	9.1	5.8	8.6	5.8
MADISON									
Red Bluff	11D4M	4900	40	4.7	9/22	3.2	-	-	-
SHIELDS									
Battle Ridge	10D11M	6020	48	15.4	9/30	9.3	10.6	-	-
Shields River	10C4M	5850	48	20.8	9/30	8.7	11.5	-	-
FLATHEAD									
Desert Mountain	13A2M	5600	54	8.4	10/5	4.9	4.5	7.2	5.8
Marias Pass	13A5M	5250	54	6.5	9/26	3.6	2.8	4.9	3.8
Spotted Bear R.S.	13B15M	3700	28	6.2	10/5	4.4	0.9	5.2	3.1
Trout Lake	13A12M	3600	54	12.7	10/5	7.8	6.9	9.8	7.7

WATER SUPPLY FORECASTS

AS OF MAY 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	COLUMBIA RIVER BASIN					
	KOOTENAI RIVER					
3030	Libby (at)	May-Sept	6219	88	8267	7053
		May-July	5303	88	7262	6024
3050	Leonia (at)	May-Sept	6994	88	9362	7994
		May-July	6024	87	8351	6903
	NORTH FORK FLATHEAD RIVER					
3555	Columbia Falls (near)	May-Sept	1590	91	1894	1749
		May-July	1435	91	1754	1576
		May-June	1182	91	1569	1298
	MIDDLE FORK FLATHEAD RIVER					
3585	West Glacier (near)	May-Sept	1680	99	1689	1687
		May-July	1542	99	1585	1553
		May-June	1271	98	1415	1286
	SOUTH FORK FLATHEAD RIVER					
3625	Columbia Falls (at)(17)	May-Sept	2040	101	2024	2015
		May-July	1925	101	1934	1897
		May-June	1614	100	1795	1617
	FLATHEAD RIVER					
3630	Columbia Falls (at)(17)	May-Sept	5433	97	5668	5608
		May-July	4995	97	5329	5155
		May-June	4147	96	4819	4302
3720	Polson (near)(18)	May-Sept	6452	98	6738	6605
		May-July	5933	98	6326	6081
		May-June	4921	98	5713	5039
	SWAN RIVER					
3700	Big Fork (near)	May-Sept	596	108	627	554
		May-July	517	108	553	479
		May-June	404	108	472	374
	BLACKFOOT RIVER					
3400	Bonner (near)	May-Sept	879	100	707	879
		May-July	786	100	638	783
		May-June	647	99	568	655
	FLINT CREEK					
3295	Maxville (at)	May-Sept	36.7	95	27.3	38.7
		May-July	26.1	95	18.5	27.6
	BOULDER CREEK					
3300	Maxville (at)	May-Sept	23.6	89	14.3	26.4
		May-July	21.1	88	13.1	24.0
	MIDDLE FORK ROCK CREEK					
3320	Philipsburg (near)	May-Sept	69.3	92	55.3	75.6
		May-July	62.1	92	50.4	67.6

(17) Corrected for storage in Hungry Horse Reservoir.
(18) Corrected for storage in Hungry Horse Reservoir and Flathead Lake.

* PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

As of May 1, 1952

No.	Stream and reservoir point	Average		Monthly		Average		Monthly	
		Period	Volume	Period	Volume	Period	Volume	Period	Volume
	SACRAMENTO RIVER BASIN								
	SOUTHERN RIVERS								
3020	Lindy (ai)	May-Sept	1623	Apr	1527	May	1023	Apr	1023
		May-July	1320	May	1242	May	1242	May	1242
3024	Lacola (ai)	May-Sept	6[illegible]	Apr	5[illegible]	May	5[illegible]	May	5[illegible]
		May-July	6[illegible]	May	6[illegible]	May	6[illegible]	May	6[illegible]
	SO. FK. FOR. STANISLAUS RIVER								
3025	Donnells Inflow (Jan)	May-Sept	1[illegible]	Apr	91	May	1[illegible]	May	1[illegible]
		May-July	1[illegible]	May	91	May	1[illegible]	May	1[illegible]
		Apr-Aug	1[illegible]	Apr	91	May	1[illegible]	May	1[illegible]
	MIDDLE FOR. STANISLAUS RIVER								
3025	Upper Stanislaus (Jan)	May-Sept	1[illegible]	Apr	78	May	1[illegible]	May	2[illegible]
		May-July	1[illegible]	Apr	90	May	1[illegible]	May	1[illegible]
		May-June	1[illegible]	Apr	90	May	1[illegible]	May	1[illegible]
	NORTH FOR. MIL-TUOLUMNE RIVER								
3025	Cherry Valley (Jan)(1)	May-Sept	2[illegible]	Apr	1[illegible]	May	2[illegible]	May	2[illegible]
		May-July	1[illegible]	Apr	1[illegible]	May	1[illegible]	May	1[illegible]
		May-June	1[illegible]	Apr	1[illegible]	May	1[illegible]	May	1[illegible]
	MAIN FORK								
3025	Don Pedro Inflow (1)(2)	May-Sept	3[illegible]	Apr	97	May	3[illegible]	May	3[illegible]
		May-July	3[illegible]	Apr	96	May	3[illegible]	May	3[illegible]
		May-June	2[illegible]	Apr	96	May	2[illegible]	May	2[illegible]
3020	Hetch Hetchy (Jan)(1)(2)	May-Sept	3[illegible]	Apr	97	May	3[illegible]	May	3[illegible]
		May-July	3[illegible]	Apr	96	May	3[illegible]	May	3[illegible]
		May-June	2[illegible]	Apr	96	May	2[illegible]	May	2[illegible]
	MERCED RIVER								
3700	Ahwahnee (Jan)	May-Sept	3[illegible]	Apr	108	May	4[illegible]	May	4[illegible]
		May-July	3[illegible]	Apr	108	May	3[illegible]	May	4[illegible]
		May-June	2[illegible]	Apr	108	May	2[illegible]	May	2[illegible]
	BLACK'S FORK								
3700	Bagby (Jan)	May-Sept	8[illegible]	Apr	109	May	4[illegible]	May	8[illegible]
		May-July	8[illegible]	Apr	109	May	8[illegible]	May	8[illegible]
		May-June	6[illegible]	Apr	109	May	6[illegible]	May	6[illegible]
	PINAY CREEK								
3700	Mariposa (Jan)	May-Sept	36.7	Apr	95	May	50.5	May	36.7
		May-July	36.4	Apr	95	May	36.5	May	36.6
	BOULDER CREEK								
3700	Merville (Jan)	May-Sept	23.6	Apr	89	May	14.5	May	28.4
		May-July	21.1	Apr	88	May	13.3	May	21.0
	MIDDLE FORK MOOR CREEK								
3720	Pattiphamy (Jan)	May-Sept	69.3	Apr	94	May	52.3	May	75.6
		May-July	63.1	Apr	92	May	50.4	May	67.6

(1) Corrected for storage in Hetchy Hetch Reservoir.
(2) Corrected for storage in Hetchy Hetch Reservoir and Eleanor Lake.

WATER SUPPLY FORECASTS

AS OF MAY 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	CLARK FORK RIVER					
3404	Milltown (above)(14)	May-Sept	644	92	418	698
		May-July	552	92	347	600
		May-June	452	92	298	492
3405	Missoula (above)	May-Sept	1523	97	1125	1577
		May-July	1338	97	984	1383
		May-June	1099	96	866	1147
3530	Missoula (below)	May-Sept	2853	97	2125	2950
		May-July	2561	97	1907	2648
		May-June	2123	97	1735	2200
3545	St. Regis (at)	May-Sept	3853	97	3070	3948
		May-July	3427	97	2764	3540
		May-June	2869	97	2489	2950
3890	Plains (near)(18)	May-Sept	10683	98	10276	10837
		May-July	9580	98	9514	9816
		May-June	7927	98	8591	8125
3920	Whitehorse Rapids (at)(18)	May-Sept	11940	98	-	12144
		May-July	10510	98	-	10241
		May-June	8825	98	-	9027
	WEST FORK BITTERROOT RIVER					
3425	Conner (near)(15)	May-Sept	145	95	-	153
		May-July	133	94	-	141
	BITTERROOT RIVER					
3440	Darby (near)	May-Sept	487	94	369	519
		May-July	447	93	333	479
		May-June	382	93	306	409
3528	Missoula (near)(16)	May-Sept	1330	96	1000	1379
		May-July	1223	96	923	1272
		May-June	1024	96	869	1066
	BLODGETT CREEK					
3475	Corvallis (near)	May-Sept	39.8	95	35.1	41.9
		May-July	37.7	95	33.7	39.6
	BURNT FORK CREEK					
3510	Stevensville (near)	May-Sept	26.4	92	19.4	28.6
		May-July	23.2	92	17.2	25.3

(14) Difference in observed flow, Clark Fork above Missoula & Blackfoot at Bonner.
(15) Corrected for storage in West Fork Bitterroot River Reservoir.
(16) Difference in observed flow, Clark Fork above and below Missoula.
(18) Corrected for storage in Hungry Horse Reservoir and Flathead Lake.

*PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

AS OF MAY 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	MISSOURI RIVER BASIN					
	RED ROCK RIVER					
0110	Kennedy Ranch (at)	May-Sept	50.6	92	20.4	54.9
		May-July	45.0	92	17.0	49.1
0125	Monida (near)(1)	May-Sept	56.3	91	21.2	62.3
		May-July	52.6	91	14.1	58.1
	BIG HOLE RIVER					
0255	Melrose (near)	May-Sept	557	83	356	668
		May-July	506	83	327	611
	BOULDER RIVER					
0330	Boulder (near)	May-Sept	64.1	92	42.6	69.4
		May-July	60.6	92	40.5	66.0
	JEFFERSON RIVER					
0345	Sappington (at)	May-Sept	764	84	407	913
		May-July	665	83	356	798
	MADISON RIVER					
0375	West Yellowstone (near)	May-Sept	197	105	144	187
		May-July	142	105	99	136
0385	Grayling (near)(2)	May-Sept	407	104	285	389
		May-July	317	106	198	298
0410	McAllister (near)(3)	May-Sept	668	101	440	659
		May-July	526	102	311	516
	GALLATIN RIVER					
0435	Gateway (near)	May-Sept	503	116	310	431
		May-July	426	116	246	367
	EAST GALLATIN RIVER					
0480	Bozeman (at)	May-Sept	41.1	110	16.8	37.2
		May-July	34.6	110	12.7	31.5
	HYALITE CREEK					
0500	Haylite R. S. (at)(4)	May-Sept	36.2	109	22.6	33.2
		May-July	30.4	108	18.9	28.2
	GALLATIN RIVER					
0525	Logan (at)	May-Sept	528	124	196	426
		May-July	442	124	130	356

(1) Corrected for storage in Lima Reservoir.
(2) Corrected for storage in Hebgen Lake.
(3) Corrected for storage in Hebgen and Ennis Lakes.
(4) Corrected for storage in Middle Creek Reservoir.

*PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

As of May 1, 1944

No.	River and reservoir basin	Forecast		Storage		Water-year runoff	
		Period	Runoff	Present	Average	Forecast	Average
	MISSOURI-KANSAS BASIN						
	NORTH PLATTE RIVER						
0140	Kennedy Basin (est)	May-Sept	50.0	92	70.0	54.0	76.0
		Mar-May	6.0	92	7.0	5.0	7.1
0135	Pathfinder (incr)(1)	May-Sept	35.0	85	41	32.0	38.0
		Mar-May	2.6	93	2.8	2.4	2.5
	BIG HORN RIVER						
0255	Bighorn (incr)	May-Sept	37	83	44	34	44
		Mar-May	5.0	83	6.0	5.0	6.0
	YELLOWSTONE RIVER						
0310	Buffalo (incr)	May-Sept	1.1	83	1.3	1.1	1.3
		Mar-May	0.4	80	0.5	0.3	0.4
	MISSOURI RIVER						
0342	Gravelly (est)	May-Sept	75	82	90	67	82
		Mar-May	6.5	83	7.8	5.5	6.6
	MADISON RIVER						
0375	West Yellowstone (incr)	May-Sept	197	105	188	144	188
		Sept-Nov	3.2	100	3.2	3.2	3.2
0355	Gibbonsville (incr)(2)	May-Sept	270	104	260	282	260
		May-July	210	108	194	209	194
0420	Toston (incr)(3)	May-Sept	640	101	630	635	630
		May-July	520	102	510	512	510
	GALLATIN RIVER						
0435	Gallatin (incr)	May-Sept	324	118	275	324	275
		May-July	224	124	180	224	180
	EAST GALLATIN RIVER						
0460	Bozeman (est)	May-Sept	11.4	77	14.8	17.4	14.8
		May-July	5.2	74	7.0	6.7	7.0
	MISSOURI RIVER						
0500	Hauslite R. S. (est)(4)	May-Sept	32.2	106	30.4	32.2	30.4
		May-July	22.4	106	21.0	22.0	21.0
	GALLATIN RIVER						
0525	Logan (est)	May-Sept	350	104	336	364	336
		May-July	244	102	240	254	240

(1) Corrected for storage in Lake Hattie.
(2) Corrected for storage in Sheep Creek.
(3) Corrected for storage in Hyrum and Ackley Lakes.
(4) Corrected for storage in Middle Creek Reservoir.

WATER SUPPLY FORECASTS

AS OF MAY 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	MISSOURI RIVER					
0545	Toston (at)(3)	May-Sept	1966	98	932	2006
		May-July	1654	98	716	1693
0908	Fort Benton (at)(5)	May-Sept	2867	93	-	3098
		May-July	2385	93	-	2575
1095	Virgelle (at)(6)	May-Sept	3412	90	-	3799
		May-July	2859	89	-	3209
1150	Zortman (near)(6)	May-Sept	3675	89	-	4140
		May-July	3095	89	-	3477
1320	Fort Peck Dam (below)(7)	May-Sept	3458	86	-	4027
		May-July	2972	86	-	3446
1770	Wolf Point (near)(7)	May-Sept	3516	83	-	4256
		May-July	3040	83	-	3647
3300	Williston, N. D. (nr)(8)	May-Sept	9620	91	4107	10565
		May-July	8340	91	3346	9144
	PRICKLY PEAR CREEK					
0615	Clancy (near)	May-Sept	16.2	78	8.2	20.7
		May-July	13.8	78	6.8	17.6
	NORTH FORK SUN RIVER					
0785	Augusta (near)	May-Sept	200	89	-	225
		May-July	180	87	-	207
	SUN RIVER					
0786	Gibson Dam (at)(10)	May-Sept	492	89	458	551
		May-July	445	89	424	501
	MARIAS RIVER					
0995	Shelby (at)	May-Sept	495	85	358	581
		May-July	446	85	337	527
	SOUTH FORK MUSSELSHELL R.					
1185	Martinsdale (above)	May-Sept	42.0	91	9.5	46.3
		May-July	40.2	91	9.1	44.2
	MUSSELSHELL RIVER					
1205	Harlowton (at)(9)	May-Sept	60.8	89	-	68.2
		May-July	59.8	89	-	67.2

(3) Corrected for storage in Hebgen and Ennis Lakes.
(5) Corrected for storage in Canyon Ferry Reservoir.
(6) Corrected for storage in Canyon Ferry and Tiber Reservoirs.
(7) Corrected for storage in Canyon Ferry, Tiber and Fort Peck Reservoirs.
(8) Corrected for storage in Canyon Ferry, Tiber, Fort Peck, Buffalo Bill and Boysen Reservoirs.
(9) Corrected for storage in Durand and Martinsdale Reservoirs.
(10) Corrected for storage in Gibson Reservoir and diversions.

*PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

as of May 1, 1953

No.	Area and Water Supply Index	Forecast Period	Forecast Value	Median Value	Measured Flow to date	Percent of Median
	ATLANTIC REGION					
0543	Dunton (Ja)(1)	May-Jul	18	23	5.5	24%
		May-Sep	24	32	7.6	24%
0545	York Haven (Ja)(2)	May-Jul	1,651	2,100	—	79%
		May-Sep	2,577	3,300	—	78%
1070	Vernon Lake (Ja)(3)	May-Jul	34.5	43	—	80%
		May-Sep	54.5	70	—	78%
1135	Cortland (Jan)(4)	May-Jul	2.5	4.0	—	63%
		May-Sep	3.5	5.7	—	61%
1150	Tyler Ridge Lake (Jan)(5)	May-Jul	2.5	4.0	—	63%
		May-Sep	3.5	5.7	—	61%
1170	Wolf Creek (Jan)(6)	May-Jul	2.5	4.0	—	63%
		May-Sep	3.5	5.7	—	61%
1300	Williamson, E. Br. (Jan)(8)	May-Jul	30.0	34	14.7	43%
		May-Sep	33.0	37	16.2	44%
	PACIFIC RIM REGION					
0410	Cherry (Jan)(9)	May-Jul	14	18	8.2	45%
		May-Sep	15.5	19	8.8	46%
	NORTH SIERRA RIVER					
0163	Alameda (Jan)(10)	May-Jul	400	390	—	103%
		May-Sep	430	420	—	102%
	NEW ALBER					
0290	Gibson Lake (Jan)(10)	May-Jul	400	390	456	103%
		May-Sep	430	420	494	102%
	MIDDLE RIVER					
0295	Shelby (Jan)	May-Jul	48	48	36.4	75%
		May-Sep	54	54	41.7	77%
	SOUTH SIDE MOUNTAINS					
1140	Marysville (Jan)	May-Jul	12.0	14	9.5	84.3
		May-Sep	13.3	15	9.8	88.2
	MOUNTAINS, EAST					
1305	Hardwood (Jan)(11)	May-Jul	4.8	30	—	16%
		May-Sep	5.8	35	—	17%

(3) Corrected for storage in Nelson and Sauk Lakes.
(4) Corrected for storage in Cortland Reservoir.
(5) Corrected for storage in Tyler Ridge Lake, Ada, Tiffen Reservoir.
(7) Corrected for storage in Cedar Valley, Tyler and Fort Peck Reservoirs.
(8) Corrected for storage in Cedar Valley, Cedar, Fort Peck, Buffalo Bill and Bryan Reservoirs.
(9) Corrected for storage in Hetch and Modesto Reservoirs.
(10) Corrected for storage in Hetch Reservoir and diversions.

WATER SUPPLY FORECASTS

AS OF MAY 1, 1962

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	YELLOWSTONE RIVER					
1915	Corwin Springs (at)	May-Sept	2078	110	1307	1888
		May-July	1705	109	1079	1557
1925	Livingston (at)	May-Sept	2336	109	1370	2136
		May-July	1918	109	1116	1747
2145	Billings (at)	May-Sept	4234	106	2294	3998
		May-July	3555	105	1872	3393
3090	Miles City (at)(12)	May-Sept	6195	100	2966	6182
		May-July	5357	100	2440	5343
3295	Sidney (at)(12)	May-Sept	6210	98	2737	6362
		May-July	5300	98	2311	5430
	SHIELDS RIVER					
1935	Clyde Park (at)	May-Sept	95.6	103	32.4	92.5
		May-July	87.8	103	30.6	84.8
	ROSEBUD CREEK					
2045	Absarokee (near)(11)	May-Sept	270	106	142	255
		May-July	215	106	103	204
	STILLWATER RIVER					
2050	Absarokee (near)(11)	May-Sept	624	105	347	594
		May-July	518	104	272	497
	CLARKS FORK RIVER					
2075	Chance (at)	May-Sept	545	93	435	590
		May-July	488	93	390	525
2085	Edgar (at)	May-Sept	568	94	441	616
		May-July	497	92	371	540
	ROCK CREEK					
2095	Red Lodge (near)	May-Sept	128	117	76.2	109
		May-July	98	117	56.6	83.6
	BULL LAKE CREEK					
2250	Lenore (near)(14)	Apr-Sept	184	108	134	170
	NORTH POPO AGIE RIVER					
2320	Milford (near)	Apr-Sept	92	124	57	74
	LITTLE POPO AGIE RIVER					
2330	Lander (near)	Apr-Sept	57	137	25.3	43
	WIND RIVER					
2185	Dubois (at)	Apr-Sept	106	106	60	100
	SHOSHONE RIVER					
2820	Buffalo Bill Dam (bl)(13)	Apr-Sept	850	100	-	851

(11) Corrected for storage in Mystic Lake.
(12) Corrected for storage in Buffalo Bill and Boysen Reservoirs.
(13) Corrected for storage in Buffalo Bill Reservoir and Heart Mountain diversion.
(14) Corrected for storage in Bull Lake Reservoir.

*PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

as of: May 1, 2020

(1000 Ac-ft Over)

No.	River and Forecast Point	Forecast Period		Median	Average	Maximum Flow	
		Start	End			Year	Value
	TRINITY RIVER						
1015	Grand Prairie (ac)	May-Sep		2014	170	1,307	7,[illegible]
		May-May		1000	124	1077	1,307
1025	Glenrose (ac)	May-Sep		2,235	298	1,370	2,[illegible]
		May-May		1015	205	1,[illegible]	[illegible]
1045	Hilltop (ac)	Mar-Sep		[illegible]	416	2,[illegible]	3,[illegible]
		Mar-Mar		2,[illegible]	405	1,[illegible]	3,[illegible]
3010	Nelson Gulch (ac)(12)	May-Sep		6,[illegible]	300	2,[illegible]	6,[illegible]
		May-May		3,[illegible]	109	2,[illegible]	5,[illegible]
3025	Stamps (ac)(12)	May-Sep		5,[illegible]	36	2,[illegible]	4,[illegible]
		May-May		3,[illegible]	98	2,[illegible]	5,[illegible]
	BRAZOS RIVER						
1035	Diamond (ac)	May-Sep		95.6	107	96.4	92.3
		May-May		87.8	103	96.8	84.4
	NUECES CREEK						
2045	Abner Jobe (acre)(11)	May-Sep		[illegible]	[illegible]	[illegible]	232
		May-May		232	109	1[illegible]	204
	STILLHOUSE HOLLOW						
2050	Kempner (acre)(11)	May-Sep		6[illegible]	106	2[illegible]	[illegible]
		May-May		5[illegible]	104	2[illegible]	157
	CLEAR FORK BRAZOS						
3075	Graham (ac)	May-Sep		5[illegible]	23	4,[illegible]	390
		May-May		4[illegible]	09	3[illegible]	272
3085	Eskota (ac)	May-Sep		3[illegible]	21	2,[illegible]	834
		May-May		4[illegible]	52	2[illegible]	3[illegible]
	ROCK CREEK						
3095	Red Gulch (acre)	May-Sep		3,[illegible]	117	2[illegible]	105
		May-May		98	117	2[illegible]	75.8
	WEST FORK TRINITY						
2230	Lavon (acre)(14)	Apr-Sep		1[illegible]	108	134	2[illegible]
	NORTH FORK RED RIVER						
2240	Altus (acre)	Apr-Sep		[illegible]	139		4[illegible]
	LITTLE FOXO RIVER						
2250	Lugert (acre)	Apr-Sep		57	137	3[illegible]	4,[illegible]
	WICHITA RIVER						
2165	Diversion (ac)	Jan-Sep		31[illegible]	106	90	102
	SALT FORK RIVER						
2260	Kemp Dam Div (ac)(14)	Jan-Sep		6[illegible]	120	-	821

(11) Corrected for storage in Nueces Lake.
(12) Corrected for storage in Brazos Bend and Stamps Reservoir.
(13) Corrected for storage in Little Elm, Ray Roberts and Lake Dallas diversion.
(14) Corrected for storage in Kemp Lake Reservoir.

SNOW SURVEY DATA

AS OF MAY 1, 1962

(inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
	COLUMBIA RIVER BASIN						
Kootenai River							
15B11	Baree Creek	5500	5/2	83	41.8	53.0	48.2*
14A4	Brush Creek	5000	4/23	22	8.4	12.6	10.5*
Can 10	Fernie	3500	4/30	0	0	2.3	2.7*
Can 12A	Field	4200	5/3	0	0	0.5	0.8*
Can 43	Gray Creek	5100	4/29	49	17.5	23.7	20.4*
Can 33	Kicking Horse	5400	5/1	31	11.1	12.8	11.8*
Can 20B	Kimberley	3800	4/26	0	0	0.5	1.5*
Can 32	Marble Canyon	5000	5/2	36	9.0	13.0	13.5*
Can 10A	New Fernie	4100	4/30	10	3.9	10.2	6.7*
15A1	Red Mountain	6000	4/25	37	14.4	23.4	19.7
Can 8A	Sinclair Pass	4500	5/3	0	0	2.6	2.1*
Can 20A	Sullivan Mine	5100	4/30	24	9.2	16.5	11.9*
Can 41	Upper Elk River	4400	4/29	0	0	4.1	2.2*
14A7	Weasel Divide	5450	4/24	72	30.5	41.0	34.7*
Flathead River							
13B14A	Basin Creek	5000	5/4	0	0	0	1.8*
14B3	Bassoo Peak	5150	4/26	13	5.3	9.4	-
13B3	Big Creek	6750	5/1	99	49.0	56.4	48.4*
13A17	Camp Misery	6400	4/26	103	43.9	-	-
13A2M	Desert Mountain	5600	4/27	30	12.2	14.6	13.0
13B4	Fatty Creek	5500	5/1	46	18.6	-	-
14A9	Griffin Creek Divide	5150	4/27	13	5.1	8.5	-
14A3	Hell Roaring Divide	5770	5/3	62	28.1	35.1	28.7
13B13A	Holbrook	4530	5/4	0	0	1.6	1.2*
14A5	Logan Creek	4300	4/23	5	2.0	3.2	2.7*
13A5M	Marias Pass	5250	4/30	36	14.7	16.4	15.7
13B7	North Fork Jocko	6330	5/2	103	48.8	55.6	44.7*
13B2	Spotted Bear Mountain	7000	5/1	20	7.5	12.2	12.6*
13A10	Strawberry Lake	6500	5/4	69	34.0	48.0	40.0*
13B1	Trinkus Lake	6500	5/4	89	43.6	44.6	41.4*
13A12M	Trout Lake	3600	4/30	16	3.5	1.4	8.2*
13B11	Twin Creeks	3580	4/30	0	0	0	0.8*
13B5	Upper Holland Lake	7000	5/4	78	37.8	37.1	36.8*

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MAY 1, 1962

| SNOW COURSE | | | ELEVATION OF SNOW COURSE | | |

SNOW SURVEY DATA

AS OF MAY 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
Clark Fork River							
13C13	Black Pine	7100	4/24	24	9.0	-	-
13B10	Coyote Hill	4200	4/30	7	3.2	2.7	2.1*
15C2	Fish Lake Airstrip	5000	4/30	78	35.0	42.7	46.1*
13C11	Fred Burr Pass	8000	4/23	52	22.6	-	-
15B10	Freezeout Summit	6800	Discontinued			38.6	35.7*
15C1	Hoodoo Creek	6200	4/26	99	44.5	56.2	46.9*
15B2	Lookout	5250	4/26	68	30.8	37.8	34.0*
13C8	Lubrecht Forest #6	4040	4/27	0	0	0	0.1*
13C12	Red Lion	7000	4/23	38	13.8	-	-
13C3	Skalkaho Summit	7259	4/24	55	24.7	-	25.8*
13C2	Slide Rock Mountain	7100	4/25	34	13.1	-	14.0*
13C7	Storm Lake	7780	4/26	33	11.2	15.3	16.3*
13C1	Stuart Mountain	7400	4/28	71	30.0	33.3	30.1
14B1	T. V. Mountain	6800	4/27	39	17.8	20.4	21.0*
Bitterroot River							
13C16	Ambrose	6475	4/24	23	9.0	13.9	-
13D2	Gibbons Pass	7100	4/27	36	16.2	20.4	23.0
14C5	Lolo Pass	5230	4/24	71	33.7	28.0	29.7
14C7	Lost Horse	5940	4/25	64	29.8	36.2	-
14D2	Nez Perce Camp	5580	4/26	13	5.6	10.1	8.3*
14D1	Nez Perce Pass	6575	4/26	15	6.8	11.8	12.6
14C8	Twin Lakes	6510	4/25	88	43.7	47.2	-

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MAY 1, 1962

No.	Name	Elevation	Date of Survey	Snow Depth	Water Content	Past Record Water Content	
						Average	Percent
	Clark Fork Basin						
1A01	Black Pine	7100	4/24	24	9.0	-	-
1A10	Coyote Hill	4700	4/30	-	4.2	8.7	48.3%
1A02	Fish Lake Airstrip	3000	4/30	72	25.0	45.7	54.7%
1A11	Fred Burr Pass	6400	4/24	42	20.8	-	-
1A10	Freeman Meadow	5700	[illegible]			34.8	59.7%
1A01	Gordon Creek	5300	4/24	39	14.5	56.2	26.0%
1A02	Lookout	4900	4/25	53	20.5	37.6	54.0%
1A08	Lookout Pass	4300	4/27	0	0	0	-
1A12	Lost Pine	4000	4/23	39	12.5	-	-
1A04	Marshall Meadow	4200	4/24	75	24.1	-	71.0%
1A03	Silver Peak Meadows	7100	4/25	34	13.1	-	71.0%
1A07	Storm Lake	7000	4/26	39	17.2	32.2	53.3%
1A01	Tobacco Meadows	4400	4/26	21	10.0	32.3	30.9
1A02	T. T. Meadows	5600	4/27	45	17.8	40.4	44.0%
	Bitterroot Basin						
1B01	Ashness	6475	4/24	23	9.0	13.9	-
1B02	Gibbons Pass	7100	4/27	37	16.2	20.1	73.0
1B05	Lick Creek	5230	4/24	21	23.7	28.3	84.7
1B07	Lost Horse	5610	4/25	45	23.3	32.3	-
1B02	Mac Pass Camp	5500	4/26	11	3.8	10.1	37.6
1B01	Mac Pass Pass	6775	4/25	45	6.8	12.4	54.8
1B02	Twin Lakes	5810	4/25	88	41.7	-	-

SNOW SURVEY DATA

AS OF MAY 1, 1962

(inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
	MISSOURI RIVER BASIN						
Beaverhead River							
11E4	Lakeview Canyon	6930	4/27	33	9.6	7.8	9.6*
11E3	Lakeview Ridge	7400	4/27	20	6.4	6.0	7.6*
Big Hole River							
13D15	Elk Horn	8450	4/28	19	5.5	6.9	8.7*
Jefferson River							
12D1	Pipestone Pass	7200	5/1	4	1.1	5.0	3.9*
Madison River							
11E5	Hebgen Dam	6550	4/26	8	2.4	4.9	3.9
10E2	Norris Basin	7500	5/1	14	5.2	5.7	6.3*
11E7	West Yellowstone	6700	4/26	13	5.0	5.4	5.6
Gallatin River							
10D4	Devil's Slide	8100	4/28	67	25.0	23.6	23.4
10D3	Hood Meadow	6600	4/28	18	4.8	7.6	5.5
11E6	Twenty-One Mile	7150	4/26	29	11.4	16.4	14.5
Missouri River (Main Stem)							
12C5	Chessman Reservoir	6200	4/30	0	0	1.5	2.6
10C1	Kings Hill	7950	4/27	32	10.9	12.4	14.1*
12C1	Stemple Pass	6900	4/30	23	7.3	8.3	8.7
12C2	Tenmile, Lower	6250	4/29	3	0.8	3.6	3.6
12C3	Tenmile, Middle	6800	4/28	20	6.6	10.4	9.0
12C4	Tenmile, Upper	8000	4/28	32	10.7	14.0	12.7
Sun-Teton-Marias Rivers							
12B7	Goat Mountain	7000	4/30	26	9.3	11.0	9.2*

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MAY 1, 1927

Snow Course			Survey Data				Past Records	
No.	Name	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)		Water Content (Inches)	Percentage of Average
	MISSOURI RIVER BASIN							
	Beaverhead River							
1124	Lakeview Canyon	6920	4/27	32	9.5		7.8	9.6*
1125	Lakeview Ridge	7400	4/27	40	6.0		6.0	7.6*
	Red Rock River							
1301S	Nye Horn	8430	4/28	18	5.4		6.9	6.7*
	Jefferson River							
1401	Fingerboard Pass	7200	5/1	4	1.1		3.0	3.7*
	Madison River							
1172	Hebgen Dam	6550	4/26	8	2.4		4.3	3.9
1202	Norris Basin	7500	5/1	11	1.5		4.7	6.1*
1127	West Yellowstone	6970	4/26	13	5.0		5.4	7.5
	Gallatin River							
1004	David's Cross	8100	4/28	37	23.0		23.4	23.4
1033	Hood Meadow	6600	4/28	12	4.8		7.9	4.5
1180	Twenty-One Mile	7200	4/26	29	11.5		16.4	14.5
	Missouri River (Main Stem)							
1305	Gibbons Reservoir	6200	4/30	0	0		1.5	2.8
1001	Kings Hill	7950	4/27	32	10.9		12.4	14.1
1203	Straight Creek	6900	4/30	23	7.3		8.3	8.7
1202	Tenmile, Lower	6250	4/29	3	0.8		3.6	1.6
1203	Tenmile, Middle	6800	4/29	20	6.6		10.4	7.0
1204	Tenmile, Upper	8000	4/29	32	10.7		16.0	12.7
	Sun-Teton-Marias Rivers							
1207	Dead Mountain	7000	4/30	26	9.3		11.0	9.2*

* Not enough data to compute average.

NOTE: All averages data on 1921-1947 its year period. "Adjusted Average"

SNOW SURVEY DATA

AS OF MAY 1, 1962

(inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
Saskatchewan River							
13A3	Iceberg Lake #3	5600	5/2	48	22.8	37.4	27.1
13A14	Josephine Lower #9	4900	5/1	40	15.2	17.7	17.1*
13A7	Mt. Allen #7	5700	5/1	101	40.4	59.2	47.3
13A6	Piegan Pass #6	5500	5/1	82	34.7	48.0	38.4
13A8	Ptarmigan #8	5800	5/2	70	30.7	47.6	37.8
Upper Yellowstone River							
9D1	Camp Senia	7890	5/1	26	8.3	4.6	-
10E3	Canyon	7750	5/1	42	15.5	10.0	12.6*
10D7	Cooke City	7400	4/30	14	3.8	6.6	6.6*
9D3	Gertrude Lake	9250	5/1	49	16.4	12.2	-
9D5	Grizzly Peak	8400	4/30	71	25.8	12.2	-
10D6	Independence	8000	4/30	38	15.2	16.8	-
10E4	Lake Camp #1	7850	4/29	32	9.9	5.9	8.7*
9E1	Lodgepole	8200	4/30	24	7.2	6.8	11.0*
10E1	Lupine Creek	7300	5/1	18	6.2	6.8	8.6*
10D12	Monument Peak	9000	4/30	64	26.0	26.2	-
10D10	Sacajawea	6550	4/27	14	6.0	11.1	-
9D4	Timberline Creek	8850	5/1	51	17.1	12.4	-
Wind River							
9F12	Big Warm	8800	4/28	19	6.2	5.7	8.5*
9F4	Burroughs Creek	8800	4/29	35	12.7	10.1	16.5*
9F10	Dinwoodie	10000	4/30	49	12.7	9.9	12.1*
9F9	Dry Creek	9500	4/30	23	5.9	6.5	6.2*
9F6	Du Noir	8750	4/28	22	6.5	3.8	7.9
9F7	Geyser Creek	8500	4/27	12	3.9	3.7	6.6*
9F8	Little Warm	9500	4/27	66	20.8	14.3	17.1*
9F14	Sheridan R. S. #2	7500	4/28	3	0.8	1.0	4.8*
9F3	T-Cross Ranch	8000	4/29	T	0.2	1.0	4.5*
10F9M	Togwotee Pass	9600	4/30	75	33.0	28.8	29.5*

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MAY 1, 1962

SNOW COURSE			COMPARE DATA					
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	LAST YEAR	10 YEAR AVERAGE
Sacramento River								
1349	Toscoyo Lake #3	5600	5/2	48	22.8	27.4	27.1	
1342A	Sonoplow Lake #3	4500	5/1	40	13.4	17.7	12.4*	
1347	Mt. Alison #2	5700	5/1	107	40.4	39.2	47.3	
1340	Tinman Pass #5	5200	5/1	82	34.7	46.0	38.4	
1342	Swainslain #3	5600	5/1	70	30.7	47.0	47.5	
Upper Yuba River Basin								
102	Camp Sierra	7200	5/1	36	8.5	4.6	-	
102C1	Cisco	7150	5/1	42	15.2	10.0	12.0*	
102W	Coyote Camp	7400	4/30	14	3.8	5.0	6.0	
102	Donner Lake	5250	5/1	49	15.4	12.2	-	
105	Hirsatz Camp	8400	4/30	71	25.8	4.4	-	
1006	Independence	6000	4/30	38	15.2	7.6	-	
1001	Lake Camp #1	7250	4/29	32	9.9	4.4	8.7*	
101	Leavenworth	5200	4/30	24	7.2	6.8	11.0*	
1001	Lowlow Creek	7200	4/1	18	6.2	0.4	2.0*	
1001Z	Sierraville Pass	5100	4/30	64	24.0	26.2	-	
1001C	Sierraview	6550	4/27	14	4.0	11.4	-	
104	Timberline Cross	8250	5/1	51	17.1	14.0	-	
Wind River								
9712	Big Bear	4500	4/28	20	6.2	5.7	8.5*	
99	Burnt Ridge Cross	8500	4/29	39	12.7	10.1	14.3*	
9710	Dinwoodie	10000	4/30	49	14.7	9.9	12.1*	
979	Dry Creek	9500	4/30	23	5.9	6.5	6.2*	
970	Ice Bolt	8750	4/28	22	6.5	4.8	7.9	
9C7	Oregon Creek	4500	4/27	12	3.9	3.7	6.6*	
979	Little Warm	9500	4/27	65	20.8	14.3	17.7*	
9712A	Roaring R. S. #2	7500	4/28	4	0.8	1.0	4.0*	
973	Z-Cross Ranch	8000	4/29	2	0.2	1.0	4.4*	
10F/M	Togwotee Pass	9600	4/30	75	23.0	28.8	29.5*	

SOURCE: SOIL CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

SNOW SURVEY DATA

AS OF MAY 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
Popo Agie River							
8G2	Blue Ridge	9500	4/23	36	12.0	7.6	13.6
9G3	Hobbs Park	10000	5/2	58	20.1	15.2	20.9*
9G4	Mosquito Park	9500	5/2	25	8.2	4.9	8.4*
8G1	Sawmill Glade	8500	4/23	22	8.8	6.9	7.1
8G3M	South Pass	9000	4/23	40	14.5	10.0	16.3
9F11	St. Lawrence R. S.	9000	5/1	24	6.5	4.3	7.7*
9G2	Trout Creek	8400	5/2	0	0	1.3	3.2*
Big Horn River							
7E31	Five-Springs Falls	7500	4/30	8	2.0	7.8	6.7*
9F19	Kirwin	11000	5/3	46	13.7	-	-
7E30	Medicine Wheel	9000	4/25	39	13.3	18.4	17.6*
8F1	Owl Creek	8700	4/23	25	8.4	8.3	8.7*
9F15	Wood River #2	8000	5/2	12	4.2	4.1	4.2*
Shoshone River							
9E4M	Carter Mountain	7800	5/1	16	4.9	4.7	7.1*
10E6	East Entrance	7000	4/30	0	0	0	4.9*
10E5	Sylvan Pass	7100	4/30	8	2.5	8.6	10.7*
Nowood Creek							
7E25	Cold Springs Camp	8700	4/25	18	5.5	8.2	6.9*
7E24M	Medicine Lodge Lakes	9500	4/25	39	12.8	13.0	12.1*
7E27M	Onion Gulch	8100	4/27	37	12.3	8.7	8.8*
7E26	West Tensleep Lake	9075	4/26	46	14.6	9.3	11.0*
7E35	Tyrell R. S.	8300	4/26	31	8.8	5.5	7.8*
Shell Creek							
7E21M	Bald Mountain	9600	4/24	65	24.5	25.2	24.1*
7E17	Granite Pass	8950	4/27	65	19.6	17.2	19.6*
7E4	Ranger Creek	8800	4/24	25	8.8	7.6	7.5*
7E23	Shell Creek	9600	4/24	59	18.6	15.0	16.0*

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MAY 1, 1962

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
Tongue River							
7E20	Beaver-Tongue	9200	4/24	59	21.3	22.0	21.4*
7E32M	Big Goose #2	7700	4/29	24	6.5	7.7	8.9*
7E18A	Bone Springs Divide	9200	4/27	69	20.9	18.8	19.9*
7E33	Burgess R. S. #2	7900	4/24	19	5.1	7.1	8.6*
7E34A	Dome Lake #2	8800	4/29	41	10.9	10.8	9.8*
7E14A	Gloom Creek	9300	4/26	54	15.1	16.4	17.0*
7E11	Sibley Lake	8000	4/28	25	7.9	9.3	10.8*
7E10	Steam Boat Point	7500	4/28	21	5.3	7.5	10.2*
7E12A	Sucker Creek	9000	4/26	45	13.0	13.4	14.8*
7E13	Wood Rock G. S.	8500	4/25	33	9.6	11.4	12.5*
Powder River							
7F1	Bear Trap	8000	4/28	26	9.2	8.6	-
7F2	Canyon Creek	7400	4/30	31	10.2	15.5	-
6E2	Muddy Creek G. S.	7800	5/1	0	0	4.2	3.9*
7E8	Munkres Pass	9700	5/1	36	10.7	8.0	9.8*
7E5	Soldier Park	8700	5/2	16	5.4	6.3	6.1*
7E6	Sour Dough	8500	5/1	20	6.2	6.9	6.6*

NOTE: ALL AVERAGES BASED ON 1943-1957 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MAY 1, 1962

SNOW COURSE			CURRENT DATA			PAST OF SAME	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER EQUIVALENT	WATER EQUIVALENT	
						LAST YEAR	AVERAGE
Tongue River							
7E20	Beaver-Tongue	9200	4/24	59	21.3	22.0	21.4*
7E22A	Big Goose #2	7700	4/29	24	6.5	7.7	8.9*
7E18A	Bone Springs Divide	9200	4/27	00	20.9	18.6	20.9*
7E23	Burgess M. S. #2	7900	4/24	19	5.1	7.1	8.6*
7E24A	Deer Lake #2	1800	4/25	41	10.9	10.5	9.8*
7E14A	Dutch Creek	9200	4/26	54	15.1	16.4	17.9*
7E11	Sibley Lake	8000	4/25	25	7.9	9.3	10.8*
7E10	Stone Bank Point	7800	4/28	21	8.3	7.4	10.2*
7E12A	Weber Creek	9000	4/24	49	13.0	13.4	14.8*
7E13	Wood Rock G. S.	8500	4/25	33	9.6	11.4	12.5*
Powder River							
7E1	Bear Trap	8000	4/25	36	9.2	8.8	-
7E2	Canyon Creek	7100	4/30	21	10.2	15.3	-
6E2	Muddy Creek G. S.	7800	5/1	0	0	4.2	3.9*
7E6	Murphy Park	8700	5/1	36	10.7	8.0	9.8*
7E5	Soldier Park	8700	5/2	16	3.4	6.3	6.1*
7E8	Sour Dough	8500	5/1	20	6.2	6.9	7.6*

NOTE: All averages based on 1951-1960 inclusive. *Average-average

RESERVOIR STORAGE
as of
April 30, 1962

BASIN	RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE - 1000 A. F. 1962	1961	1943-57 Average
MISSOURI RIVER BASIN - WYOMING					
Wind	Bull Lake	152.0	84.1	56.5	53.5
	Pilot Butte	31.6	28.4	27.4	23.0
	Boysen	560.0AC	134.5	92.7	183.0**
Owl Creek	Anchor	16.5	0	-	-
Shoshone	Buffalo Bill	440.0	164.5	117.5	230.3
Belle Fourche	Key Hole	190.0AC	0.2	2.7	10.8**
MISSOURI RIVER BASIN - NORTH DAKOTA					
Missouri	Garrison	18,000.0AC	3,901.1	4,247.8	-
Heart	E. A. Patterson	5.6AC	3.1	4.1	5.4**
	Lake Tschida	68.7AC	40.9	49.7	66.6**
James	Jamestown	20.0AC	13.0	16.1	-
MISSOURI RIVER BASIN - SOUTH DAKOTA					
Missouri	Oahe	17,000.0AC	6,481.4T	2,495.0T	-
	Fort Randall	3,800.0AC	2,727.4	2,802.9	2,371.6**
	Gavins Point	320.0AC	239.7	230.6	-
Grand	Shadehill	84.0AC	35.8	50.2	85.3**
Cheyenne	Angostura	90.0AC	18.7	7.2	52.1**
	Deerfield	15.1AC	4.7	3.1	12.4**
	Pactola	55.0AC	4.3	15.6	-
Belle Fourche	Belle Fourche	185.2AC	73.0	42.3	132.9

** Average for period of record.
AC Active Capacity, USBR, Billings.
T Total storage.

RESERVOIR STORAGE
as of
April 30, 1962

BASIN	RESERVOIR	USEABLE CAPACITY 1962	USEABLE STORAGE - 1000 A. F. 1962	1961	1960-57 Average
MISSOURI RIVER BASIN - WYOMING					
Wind	Boil Lake	150.0	84.1	96.5	53.1
	Fitts Basin	71.5	28.4	27.4	27.1
	Boysen	740.0	171.5	92.7	123.1
Owl Creek	Anchor	16.3	0	-	-
Shoshone	Buffalo Bill	456.0	156.5	116.5	59.7
Belle Fourche	Key Hole	190.0	0.2	2.7	15.1
MISSOURI RIVER BASIN - NORTH DAKOTA					
Missouri	Garrison	18,000.0	3,901.1	4,247.8	-
Heart	E. K. Patterson	7.5	3.1	4.1	5.4
	Lake Tschida	65.7	40.0	49.7	65.4
James	Jamestown	20.0	13.0	16.1	-
MISSOURI RIVER BASIN - SOUTH DAKOTA					
Missouri	Oahe	17,000.0	6,481.4	2,175.0	-
	Fort Randall	3,800.0	2,727.4	2,806.9	2,372.4
	Gavins Point	320.0	239.7	230.6	-
Grand	Shadehill	84.0	23.8	50.2	65.2
Cheyenne	Angostura	20.0	12.7	7.2	32.7
	Keerfield	15.1	4.7	3.1	12.4
	Pactola	65.0	4.3	25.5	-
Belle Fourche	Belle Fourche	185.2	72.0	42.3	138.5

** Average for period of record.
AC Active Capacity, USGS, Billings.
T Total storage.

RESERVOIR STORAGE
as of
April 30, 1962

BASIN	RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE - 1000 A. F. 1962	1961	1943-57 Average
COLUMBIA RIVER BASIN - MONTANA					
Flathead	Hungry Horse	3,428.0	2,321.0	2,213.0	2,048.0**
	Flathead Lake	1,791.0	1,119.0	1.276.0	936.0
	Camas 1/	45.2	34.2	31.6	30.6
	Mission Valley 2/	100.3	41.2	37.1	46.8
Clark Fork	Georgetown Lake	31.0	20.9	24.0	21.2
Bitterroot	Como	34.8	24.0	-	16.5
MISSOURI RIVER BASIN - MONTANA					
Beaverhead	Lima	84.0	50.6	25.9	55.9
Ruby	Ruby	38.8	N.R.	31.6	27.0**
Madison	Hebgen Lake	345.0	154.3	182.4	212.1
	Ennis Lake	41.0	38.7	35.7	34.4
Gallatin	Middle Creek	8.0	4.4	4.3	4.7**
Missouri	Canyon Ferry	2,043.0	1,419.0	1,432.0	1,628.0**
	Hauser & Helena	61.9	56.2	60.7	46.9
	Lake Helena	10.4	8.4	10.0	6.1**
	Holter Lake	81.9	74.4	74.9	57.1
	Ackley Lake	5.8	N.R.	4.1	4.3
	Durand	7.0	3.4	4.7	6.2
	Martinsdale	23.1	7.6	4.4	11.4
	Fort Peck	19,410.0	8,129.0	11,000.0	12,003.0
Sun-Teton	Gibson	105.0	74.4	34.1	70.6
	Willow Creek	32.3	14.3	25.6	21.1
	Pishkun	32.0	25.6	26.4	20.7
Marias	Lower Two Medicine	16.6	0	4.5	1.9
	Four Horns	19.2	13.7	14.4	9.0
	Tiber	1,316.0	648.1	662.6	656.9**
	Swift	30.0	24.5	18.7	27.3
	Lake Francis	112.0	82.5	80.0	99.9
Milk	Fresno	127.2	69.4	-	103.0
	Nelson	66.8	19.4	37.4	37.1
	Lake Sherburne	66.1	8.5	1.5	24.8
Yellowstone	Mystic Lake	20.8	1.4	4.8	3.3
	Tongue River	68.0	N.R.	22.8	17.4
	Cooney	27.5	20.0	-	14.7

1/ Sum of four small reservoirs on west side of Flathead Lake.
2/ Sum of eight small reservoirs in Mission Valley not including Jocko Lake.
** Average for period of record.

RESERVOIR STORAGE
as of
March 15, 1962

BASIN	RESERVOIR	USABLE CAPACITY	RESERVOIR STORAGE - 1000 A. F. 1962	1961	1943-57 Average
COLUMBIA RIVER BASIN - MONTANA					
Flathead	Hungry Horse	3,428.0	2,321.0	2,212.0	2,014.0
	Flathead Lake	1,791.0	1,119.0	1,276.0	996.0
	Osprey 1/	45.2	14.2	31.4	30.6
	Nyalen Valley 2/	100.3	12.2	37.1	46.8
Clark Fork	Georgetown Lake	31.0	20.9	24.0	21.2
Bitterroot	Como	34.8	24.0	-	16.3
MISSOURI RIVER BASIN - MONTANA					
Beaverhead	Lima	84.0	30.6	25.9	55.9
Ruby	Ruby	38.5	N.A.	31.6	27.0
Madison	Hebgen Lake	345.0	154.3	182.4	272.1
	Ennis Lake	41.0	32.7	35.7	34.4
Gallatin	Middle Creek	8.0	4.4	4.3	4.7
Missouri	Canyon Ferry	2,043.0	1,419.0	1,412.0	1,224.0
	Hauser & Holmes	81.9	54.2	60.7	46.9
	Lake Helena	10.4	8.4	10.0	6.1
	Holter Lake	81.9	74.4	74.7	57.1
	Nelson Lake	5.8	N.A.	4.1	4.3
	Tiber	7.0	3.4	4.7	6.2
	Martinsdale	23.1	7.6	4.4	12.4
	Fort Peck	19,410.0	8,129.0	11,000.0	12,003.0
Sun-Teton	Gibson	105.0	74.4	34.1	70.6
	Willow Creek	32.5	11.3	25.6	21.1
	Pishkun	32.0	25.6	26.4	20.7
Marias	Lower Two Medicine	16.6	8	4.5	1.9
	Four Horns	19.2	13.7	14.4	9.0
	Tiber	1,316.0	616.1	662.6	639.9
	Swift	35.0	24.5	18.7	27.3
	Lake Francis	112.0	82.5	80.0	99.9
Milk	Fresno	127.2	69.4	-	103.0
	Nelson	65.5	19.4	37.4	37.1
	Lake Sherburne	65.1	8.8	1.5	22.8
Yellowstone	Nyella Lake	20.4	1.4	4.8	3.3
	Tongue River	62.0	N.A.	22.8	17.4
	Cooney	272.5	20.0	-	12.7

1/ One of four small reservoirs on west side of Flathead Lake.
2/ One of eight small reservoirs in Nyalen Valley not including Jocko Lake.
* Average for period of record.

Agencies Cooperating in Collecting Data Contained in this Bulletin

U. S. Forest Service
Region I, Missoula, Montana

U. S. Geological Survey
Helena, Montana

U. S. Army Corps of Engineers
Portland, Oregon
Seattle, Washington
Omaha, Nebraska
Riverdale, N. D.

U. S. Indian Irrigation Service
St. Ignatius, Montana

U. S. Weather Bureau
Helena, Montana

U. S. Fish & Wildlife Service
Red Rock Lakes Refuge
Monida, Montana

U. S. Bureau of Reclamation
Billings, Montana
Boise, Idaho

Montana Power Company
Butte, Montana

Agricultural Experiment Station
North Montana Branch Station
Havre, Montana

Montana State Highway Dept.
East Glacier, Montana

National Park Service
Yellowstone National Park
Glacier National Park

Montana Experiment Station
Montana State College
Bozeman, Montana

Bonneville Power Administration
Portland, Oregon

Montana State School of Forestry
Montana State University
Missoula, Montana

Soil Conservation Service
Montana, Wyoming, Idaho

Soil Conservation Districts
Montana Counties

Johnson Flying Service, Inc.
Missoula, Montana

Water Rights Branch
Dept. of Lands & Forests
Victoria, British Columbia

Department of Northern Affairs
& National Resources
Calgary, Alberta

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SOIL CONSERVATION SERVICE
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COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"The Conservation of Water begins with the Snow Survey"